

## CHAPTER IV

### JIG BUSHINGS

The drills, counterbores, reamers, etc., used in connection with drill jigs are guided by steel bushings, which are hardened and ground, and placed in the jig in their proper location. These bushings may be of two kinds: stationary and removable; the latter usually being known as "hushings". The most common and the preferable form for the stationary hushing is shown in Fig. 1. This bushing is straight both on the inside and on the outside, except that the tipper corners *A* on the inside are given a liberal radius, so as to allow the drill to enter the hole easily, while the corners *B* at the lower end of the outside are slightly rounded for the purpose of making it easier to drive the bushing into the hole, when making the jig, and also to prevent the sharp corner on the bushing from cutting the metal in the hole into which the hushing is driven.

**Removable Bushings.** — When removable hushings are used, they should never be placed directly in the jig body, except if the jig be used only a few times, but the hole should always be provided with a lining bushing. This lining bushing is always made of the form shown in Fig. 1. If the hole bored in the jig body receives the loose or removable bushing directly, the setting and removing of the bushing, if the jig is frequently used, would soon wear the walls of the hole in the jig body, and after a while the jig would have to be replaced, or at least the hole would have to be bored out, and a new removable bushing made to fit the larger hole. In order to overcome this, the hole in the jig body is bored out large enough to receive the lining bushing referred to, which is driven in place. This lining bushing, then, in turn, receives the loose bushing, the outside diameter of which closely fits the inside diameter of the lining bushing, as shown in Fig. 2, in which *A* is the jig body, *B* the